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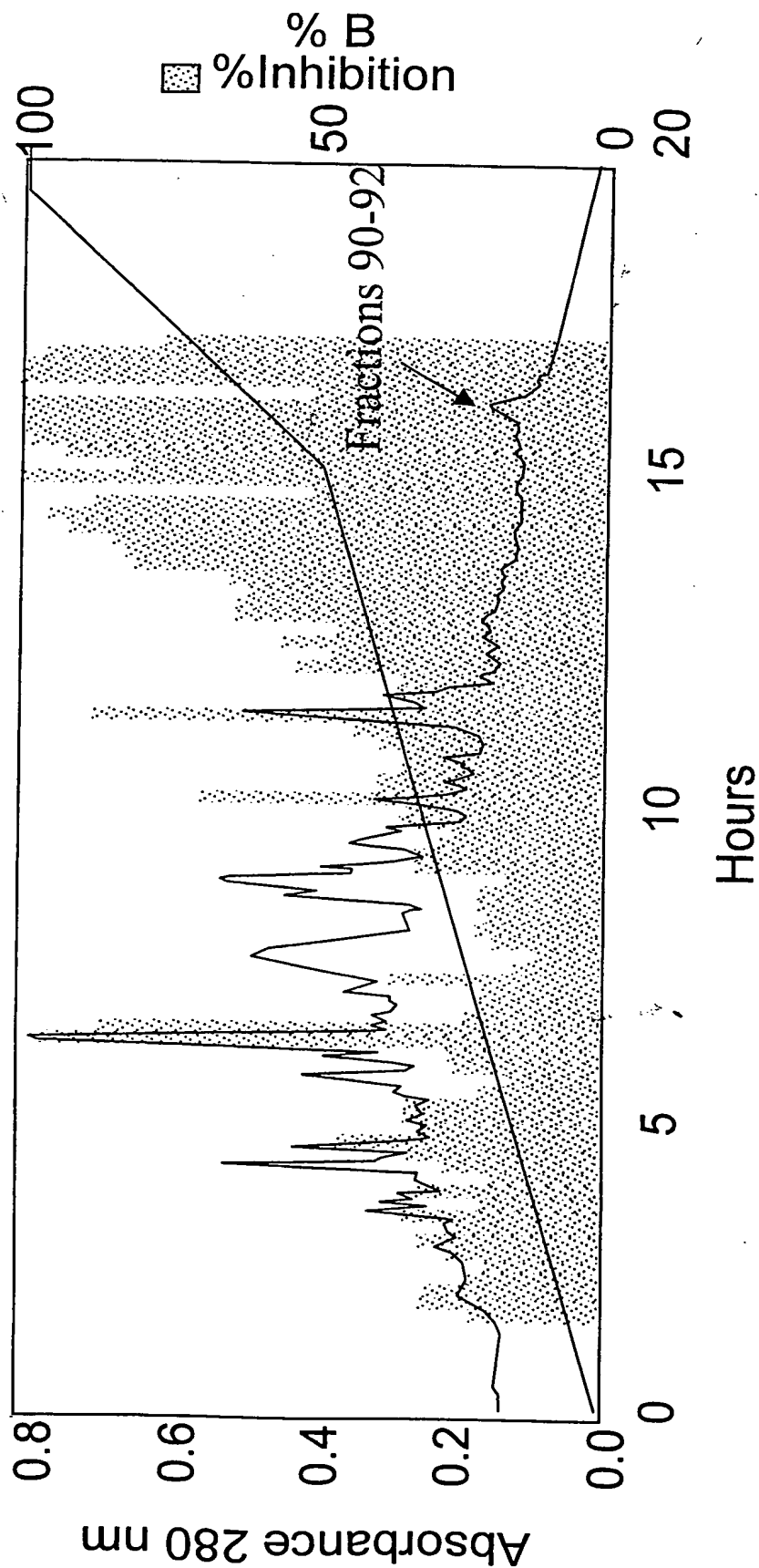


Fig. 1

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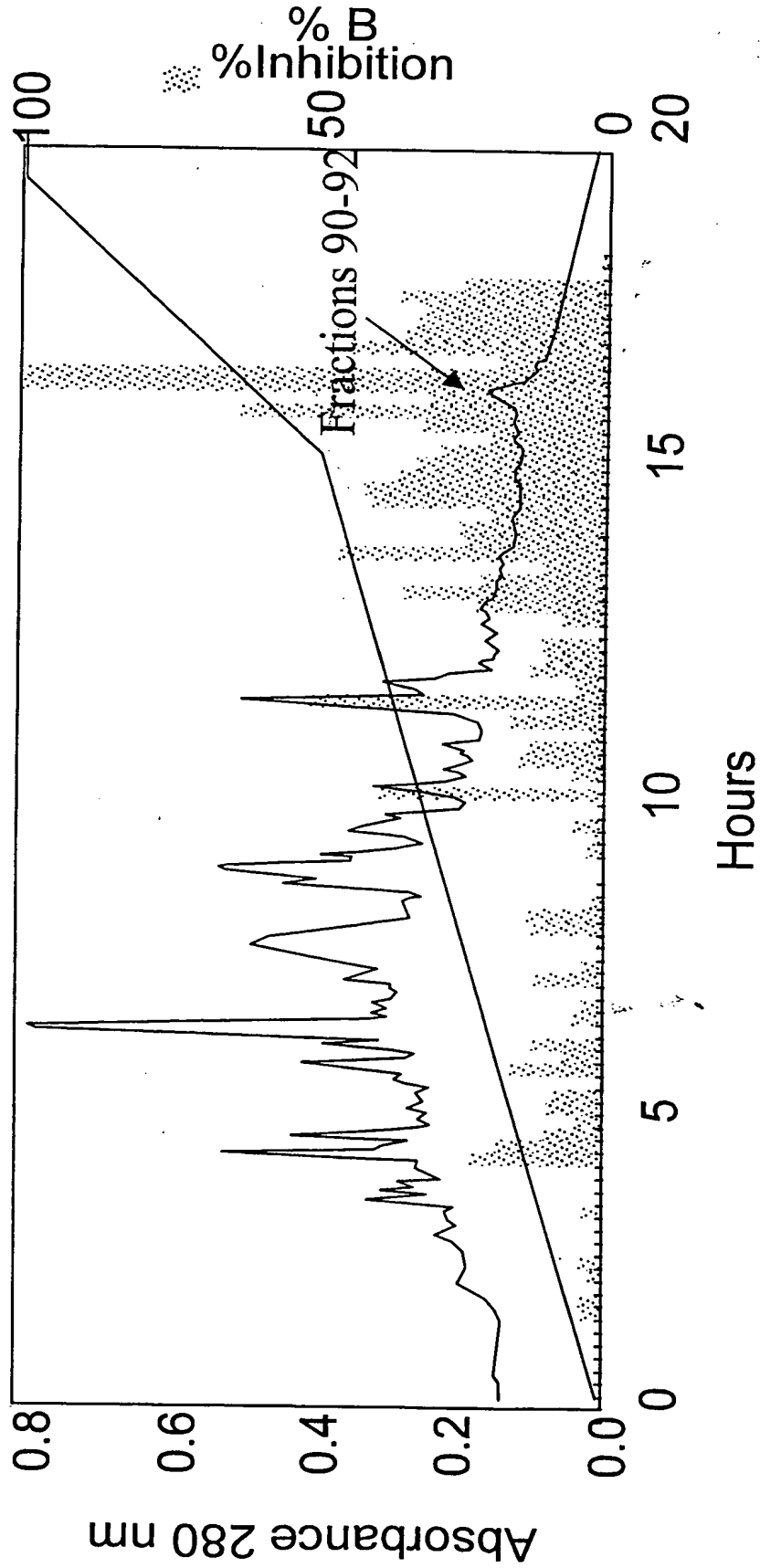


Fig. 2

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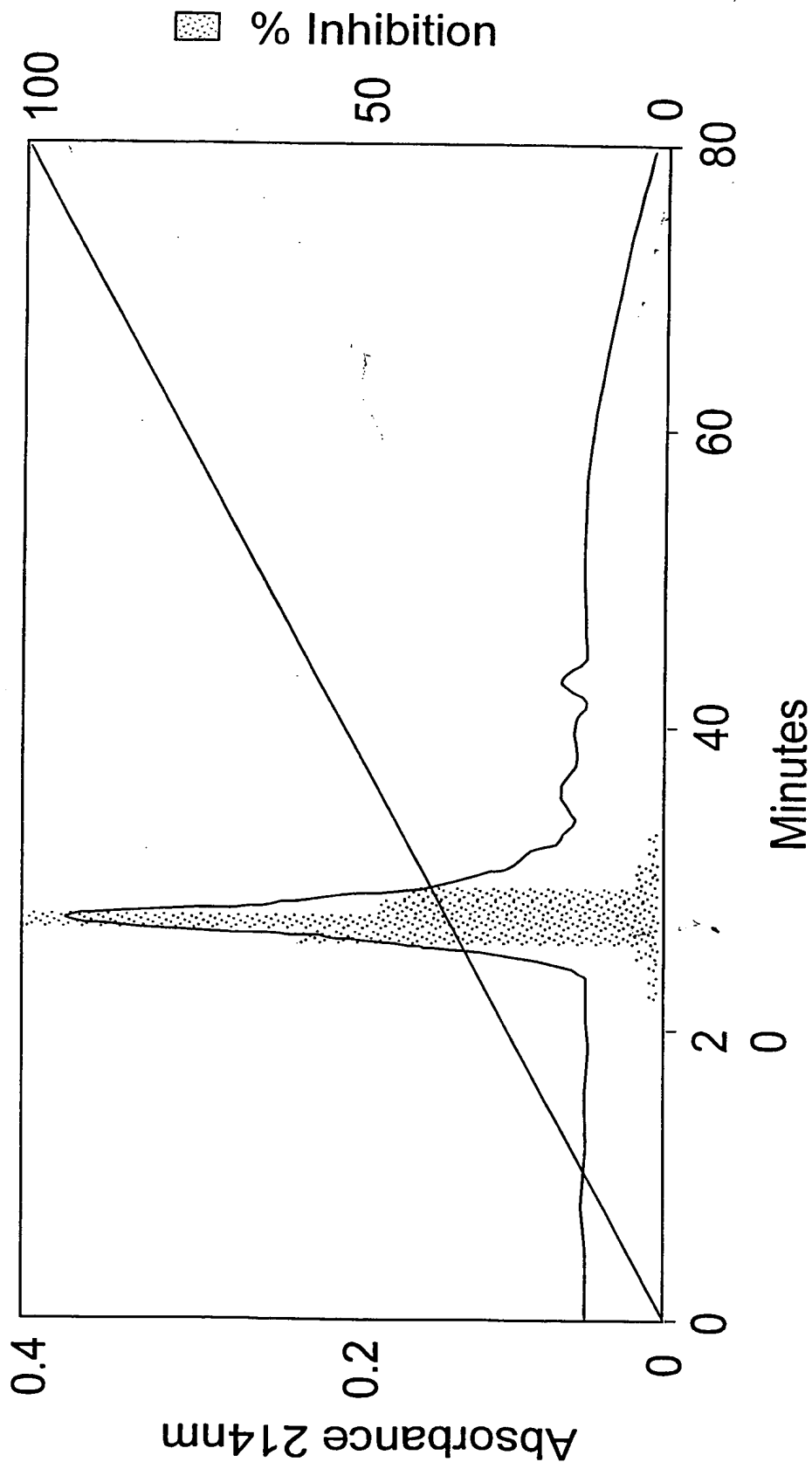


Fig. 3

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Mi2a	1	SEFDRQEECKRQCMQLE-TSG-QMRRCVSQCD	32
Mi2b	1	NQEDPQTECQQCQRRCRQQE-SGPRQQYQRRCK	34
Mi2c	1	NRQDPQQQYEQCQKHQCORRE-TEPRHMQTQQQCE	35
Mi2d	1	KRDPQQREYEDCRRRCQQE---PRQHQHQQQLRCR	32
Cocoa-a	1	YERDPQQYEQCQRRCESEA-TEEREQEQCEQRC	34
Cocoa-b	1	LQRQYQQCQGRQCEQQ-QGQREQQCQKCKW	30
Cotton-a	1	GDDDPFKRYEDCRRRCQEWDT-RGQKEQQCEESCK	34
Cotton-b	1	PEDPQRRYEECQQECRQQE---ERQQPQCCQQRCL	31
Cotton-c	1	SQRQFQECQQHCHQCE-QRPEKKQQCVRECR	30
maize glb1_0 fr	1	EDDNHHHGGHKGSGRCVRRCEDR---PWHQRPRLCQCR	36
barley glob fra	1	HDDEDDRRGGHSLQQCVQRCRQER--PRYSHARCQVECR	37
Peanut-a	1	TENP--CAQRCLQSCQQE--PDDLKQKACESRCT	30
alpha conglycin	1	ENP--KHNKCLQSCNSER--DSYRNQACHARC	29
SsAMP1 partial	1	VKEDHQFETRGEILECYRLCQQQ	23
SsAMP2 partial	1	QKHSQILGCCYLXCQQQL	17
SsAMP3 partial	1	LDPIRQQQLCQMRCCQQQEKD-PRQQQQCK	28

Fig. 4(1/2)

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Mi2a	33	KR F EEDIDWSKYD	45
Mi2b	35	EI C EEEEYY	43
Mi2c	36	RR Y EKEKRKQKRYEEQQREDEEKYEERM K EEDN	69
Mi2d	33	EQQRQHGRGGDMNPNPQRGSGRY E EEGEEEQS	63
Cocoa-a	35	RE Y KEQQRQ E EE	47
Cocoa-b	31	EQ Y KEQERGEHENYHNHKKNR S EEEGGQQR	60
Cotton-a	35	SQ Y GEKDQQQRHR	47
Cotton-b	32	KR F EEQEQQQ	40
Cotton-c	31	EK Y QENPWRGER	42
maize glb1	37	EEEREKRQERSRHEADDRSGEGSS	60
barley glob	38	DDQQQHGRHEQEEEQGRGRGWHGEG E EE	66
Peanut-a	31	KLEYDPR C VYDTGATNQRHPPGERT--RGRQP	60
alpha conglycin	30	LLKVEKE E CEEGEIPRPRRPQHPER	55
SsAMP1 partial	23		23
SsAMP2 partial	17		17
SsAMP3 partial	28		28

Fig. 4 (2/2)

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AACTCTAGAG CGGCCGCGTC GACTATTTT ACAACAATTA CCAACAACAA CAAACAACAA 60

ACAACATTAC AATTACTATT TACAATTACA GGATCCACAA CAATGGCTTG GTTCCACGTT 120
M A W F H V>

TCTGTTTGTG ACGCTGTTT CGTTGTTATT ATTATTATTA TGCCTCTTAT GTTCGTTCCCT 180
S V C N A V F V V I I I I M L L M F V P>

GTTGTTAGAG GTAGACAAAG AGATCCCTCAA CAACAATACG AGCAATGTCA AAAGAGGTGT 210
V V R G R Q R D P Q Q Q Y E Q C Q K R C>

CAAAGGAGAG AGACTGAGCC TAGACACATG CAAATTGTC AGCAAAGGTG TGAAGGAGG 240
Q R R E T E P R H M Q I C Q Q R C E R R>

TACGAGAAGG AGAAGAGGAA GCAACAAAAG AGGTGAGGAT CCGTCGACGC GGCCGCAGAT 270
Y E K E K R K Q Q K R *

CTAGACAA 278

Fig. 5

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Mi clone 1	1	MAINTSNLC	LLFLSL-FL	LLSTTVSLAE	-----SEFDRQ	EE	38	
Mi clone 2	1	MAINTSNLC	LLFLSL-FL	LLSTTVSLAE	-----SEFDRQ	EE	38	
Mi clone 3	0						0	
cotton vicilin	1	MVRNKSAC	VVLLFSL	FLSFGLLCSAK	DFPGRRGDD	-----	35	
cocoa vicilin	1	MVISKSP	FIVLIFS	LLSFALLCSG	VSA YGRKQYER	-----	36	
		*	.	*	*	*	.	
Mi clone 1	39	CKRQCMQ	LETSGQ	MRRRCVSQ	CDKRFEED	IDWSKYDNQEDPQTECQ	83	
Mi clone 2	39	CKRQCMQ	LETSGQ	MRRRCVSQ	CDKRFEED	IDWSKYDNQdDPQTdCQ	83	
Mi clone 3	42	QCMQ	LETSGQ	MRRRCVSQ	CDKRFEED	IDWSKYDNQEDPQTECQ	83	
cotton vicilin	36	-----	-----	-----	-----	DPKRYE	42	
cocoa vicilin	37	-----	-----	-----	-----	DPRQQYE	43	
						**	.	
Mi clone 1	84	QCQRR	CRQQESG	PRQQQY	QCORRCKEI	CEEEEEYNRQ	--DPQQQY	126
Mi clone 2	84	QCQRR	CRQQESG	PRQQQY	QCORRCKEI	CEEEEEYNRQ	--DPQQQY	126
Mi clone 3	84	QCQRR	CRQQESd	PRQQQY	QCORRCKEI	CEEEEEYNRQ	--DPQQQY	126
cotton vicilin	43	DCRRR	CEWDTRG	QKEQQQ	CEESCKSQ	YGEKDQQQRH	RPEDPQRY	87
cocoa vicilin	44	QCQRR	CESEATEE	REQEQQ	CEQRCERE	YKEQQRQQ	---EEELQRQY	85
		*	*	*	*	*	*	

Fig. 6 (1/6)

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Mi clone 1	127	EQCQKhCQRRETEPRHMQT	CQQR	CERR	YEKEKRKQKRYEEQQR	171		
Mi clone 2	127	EQCQeRCQRhETEPRHMQT	CQQR	CERR	YEKEKRKQKRYEEQQR	171		
Mi clone 3	127	EQCQKRRCQRRETEPRHMQI	CQQR	CERR	YEKEKRKQKRYEEQQR	171		
cotton vicilin	88	EECQQE	CRQQEE	--RQQPQ	CQQR	CLKR	FEQEQQ	118
cocoa vicilin	86	QQCQGR	CQEQQQ	QGQREQQQ	CQRK	CWEQY	-KEQ	116
		..**	*..*	**..*	***	..*	..*	
Mi clone 1	172	DEEKYEERMKEEDNKRD	PQQRE	YED	CRRR	CEQQE	--PROQHQCQ	214
Mi clone 2	172	DEEKYEERMKEEDNKRD	PQQRE	YED	CRRR	CEQQE	--PRQYQCQR	214
Mi clone 3	172	DEEKYEERMKEgDNKRD	PQQRE	YED	CRRh	CEQQE	--PRIQYQCQR	214
cotton vicilin	119	-----	-----	QSRQ	FQE	CQQH	CHQEQEQRPEKKQCCVR	146
cocoa vicilin	117	-----	-----	-----	-----	-----	-----	116
Mi clone 1	215	RCREQQRQHGRGGD	mNPQR	GGSGRY	EEGEE	eQSDNP	YF-DERS	258
Mi clone 2	215	RCREQQRQHGRGGD	LiNPQR	GGSGRY	EEGEE	KQSDNP	YF-DERS	258
Mi clone 3	215	RcQEQQRQHGRGGD	LMNPQR	GGSGRY	EEGEE	KQSDNP	YF-DERS	258
cotton vicilin	147	ECREKY	--QENPWR	GERE	EEEE	TEEGE	QEQSHNPFHF-HRRS	188
cocoa vicilin	117	-----	ER-GEHENYHNHKKNR	SEEE	EGQQRN	NPYF	FPKRRS	151
				**	*	*	**	*
				*	*	*	*	*

Fig. 6 (2/6)

Mi clone 1	304	PTHLDADAILLVIGRGALKMIHh	DNRESYNLECGDVIRIPAGTT	348
Mi clone 2	304	PTHLDADAILLVTGGRGALKMIHRD	NRESYNLECGDVIRIPAGTT	348
Mi clone 3	304	PTHLDADAILLVIGRGALKMIHRD	NRESYNLECGDVIRIPAGTT	348
cotton vicilin	234	PHCDAEKIYLVTN	GRGTLTFLTHENKESYNIVPGVVVKVPAGST	278
cocoa vicilin	197	PHCDAEAIYFVTN	GKGTITFTVTTHENKESYNVQRTVVSVVPAGST	241
		* * * *	* * * *	* * * *

Mi clone 1	349	FYLINRDNNERLHIAKFLQTI	STPGQYKEFFPAGGQNPEPYLSTF	393
Mi clone 2	349	FYLINRDNNERLHIAKFLQTI	STPGQYKEFFPAGGQNPEPYLSTF	393
Mi clone 3	349	FYLINRDNNERLHIAKFLQTI	STPGQYKEFFPAGGQNPEPYLSTF	393
cotton vicilin	279	VYLANQDNKEKLI	IAVLHRPVNPNPGQFEEFFPAGSQRPQSYLRAF	323
cocoa vicilin	242	VYVVSQDNQEKLTI	AVLALPVNSPGKYELFFPAGNNKPESYYGAF	286

Fig. 6 (3/6)

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Mi clone 1	394	SKEILEAALNTQTE kl RGV f ----	GQRE-GVIIRASQEQIRELT	433
Mi clone 2	394	SKEILEAALNTQ a ERLRGL----	GQRE-GVII S ASQEQIRELT	433
Mi clone 3	394	SKEILEAALNTQTERLRGL----	GQRE-GVIIRASQEQIRELT	433
cotton vicilin	324	SREILEPAFNT R SEQLD E FG R Q S RRRQ Q G-	MFRKASQEQIR	367
cocoa vicilin	287	SYEVLET V NTQ R E K LE E IE E Q R G K R Q Q G M F R K A K PE Q IR	331	
		* * * *	* * * *	
		** * *	.. *	..
Mi clone 1	434	RDDSESR h WHIRRGESSRGPYNLFNKRPLYSNKYGQAYEVKPED	478	
Mi clone 2	434	RDDSESR h WHIRRGESSRGPYNLFNKRPLYSNKYGQAYEVKPED	478	
Mi clone 3	434	RDDSESR h WHIRRGESSRGPYNLFNKRPLYSNKYGQAYEVKPED	478	
cotton vicilin	368	ALSQ E ATSP R E K -S G E--R F AFN L L S Q T PRYS N Q N GR F FE A CP E	409	
cocoa vicilin	332	AIS Q Q A TSP R HR-G G E--R L AIN L L S Q S PV S NQ N GR F FE A CP E	373	
	 *	** *	* * * *
		* * *	* * *	* * *
Mi clone 1	479	YRQLQDMD I SVFI A N v TQGSMMGPF F NT R STKV V V V ASGE A D V E M	523	
Mi clone 2	479	YRQLQDMD I SVFI A N v TQGSMMGPF F NT R STKV V V V ASGE A D V E M	523	
Mi clone 3	479	YRQLQDMD I SVFI A N v TQGSMMGPF F NT R STKV V V V ASGE A D V E M	523	
cotton vicilin	410	FRQLRDIN V TSALQ L NQ G SI F VP H Y N SK A TFV I L V TE G NG Y A E M	454	
cocoa vicilin	374	FSQFQNMD V AVSA F KL N Q G AI F VP H Y N SK A TFV V F V TD G Y G Y A Q M	418	
		* * * *	.. * *	* * * *
	 *	.. * *	* * * *

Fig. 6 (4/6)

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Mi clone 1 524 ACPHLSGRHGGGGR**HEEEED**-----VHYEQVRARLSKREAIV 563
 Mi clone 2 524 ACPHLSGRHGGGR**rGGKRHEEEED**-----VHYEQV**k**ARLSKREAIV 563
 Mi clone 3 524 ACPHLSGRHGGGGR**HEEEED**-----VHYEQVRARLSKREAIV 563
 cotton vicilin 455 VSPHLPRQSSY**EEEEEEDEEEEQE**EEERRSGQYRKIRSRLSRGD 499
 cocoa vicilin 419 ACPHLSRQSQSGRQDRR**EQEEEESEEE**TFGEFQQVKAPLSPGD 463
 .*** . *

Mi clone 1 564 ---VLAGHPVVFVSSGNENLLLFAFGINAQNNHEN-----FLAGR 600
 Mi clone 2 564 ---V**p**VGHPVVFVSSGNENLLLFAFGINAQNNHEN-----FLAGR 600
 Mi clone 3 564 ---VLAGHPVVFVSSGNENLLLFAFGINAQNNHEN-----FLAGR 600
 cotton vicilin 500 IFVVPANFPVTFVASQNQNLRMTGFGLYNQININPDHNQRI FVAGK 544
 cocoa vicilin 464 VFVAPAGHAVTFFASKDQPLNAVAFGLNAQN-----NQRIFLAGR 503
 . * * * . * * * . * * * .

Mi clone 1 601 ERNVLQQIEPQAMELAFAPRKEVEE**s**FNSQ-D**q**SIFFPGRQHQQ 645
 Mi clone 2 601 ERNVLQQIEPQAMELAFAPRKEVEEELFNSQ-DESIFFPGPRQHQQ 645
 Mi clone 3 601 ERNVLQQIEPQAMELAFAA**s**RKEVEEELFNSQ-DESIFFPGPRQHQQ 645
 cotton vicili 545 INHVRQ-WDSQAKELAFGVSSRLVDEIFNSNPQES-YF-VSRQRQR 587
 cocoa vicilin 504 -----PFFLNHKQNTN 514
 . * . . .

Fig. 6 (5/6)

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Mi clone 1	646	QSPRSTKQQQPLVSILDFVGF	666
Mi clone 2	646	QSRSTKQQQPLVSILDFVGF	666
Mi clone 3	646	QSPRSTKQQQPLVSILDFVGF	666
cotton vicilin	588	ASE	590
cocoa vicilin	515	VIKFTVKASAY	525

Fig. 6 (6/6)

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	1	10	20	30	40	47
MiAMP2c	<u>RQRDPQOQYE</u>	<u>QCQKRCQRRE</u>	<u>TEPRHMQICQ</u>	<u>QRCERRYEKE</u>	<u>KRKQOQKR</u>	
Gibrat method	CCCCCCCCCH	HHECCCCCCC	CCCCCCCCEEC	CCCCCCCCHH	HHHHHHH	
Levin method	CCCCCHCCHH	HHHHHCHHT	HCSCCCECC	CHHTHHHHH	HHHCHH	
DPM method	CCCCCCCCCH	HHHHHHHHH	CHCCHHEEH	HHHHHHHHH	HHHHHCC	
SOPMA method	CCCCCHHHH	HHHHHEECC	CCCCHHEEE	EHHHHHHHH	HHHHHHH	
PhD method	CCCCHHHHH	HHHHHHHHH	CCCCCHHHH	HHHHHHHHH	HHHCC	
Consensus	<u>CCCCCHCCHH</u>	<u>HHHHH-HH-</u>	<u>CCCC--EE-</u>	<u>-HHHHHHHH</u>	<u>HHHHHHH</u>	

Fig. 7

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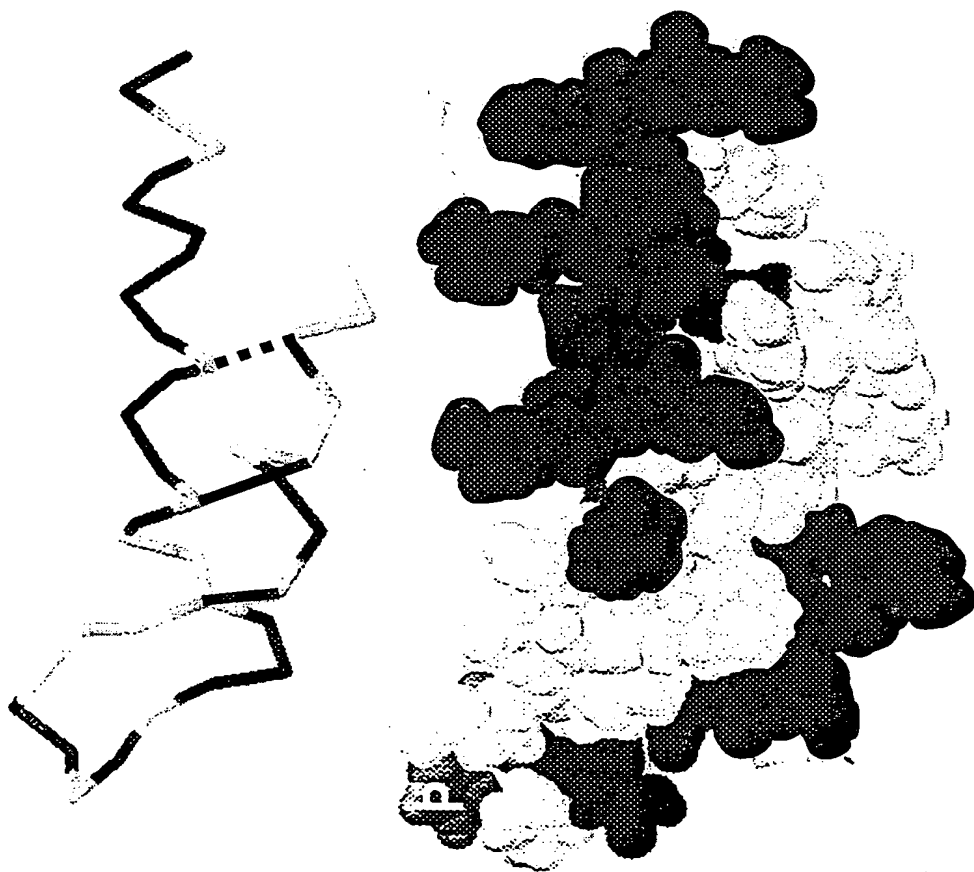


Fig. 8

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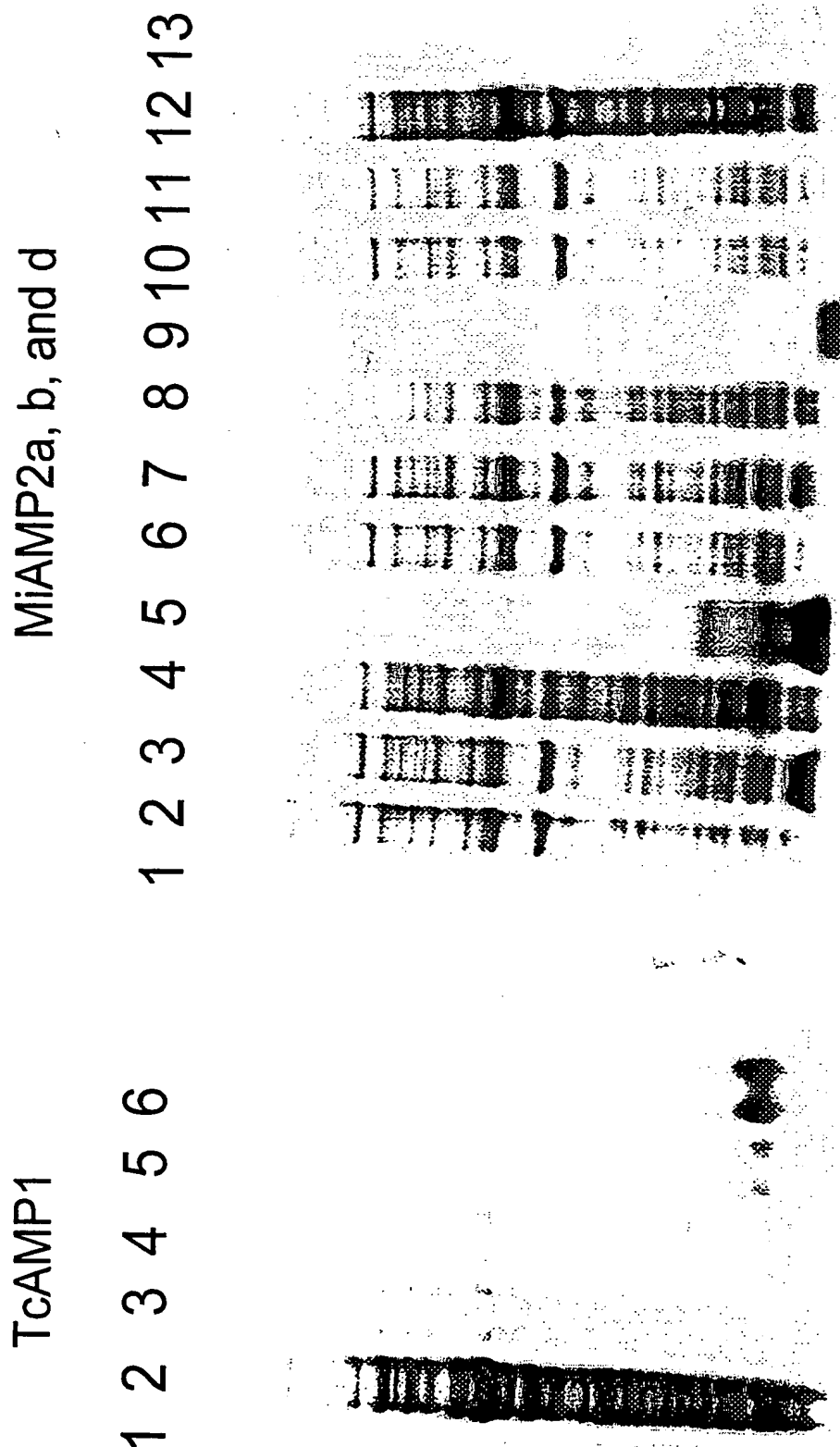


Fig. 9

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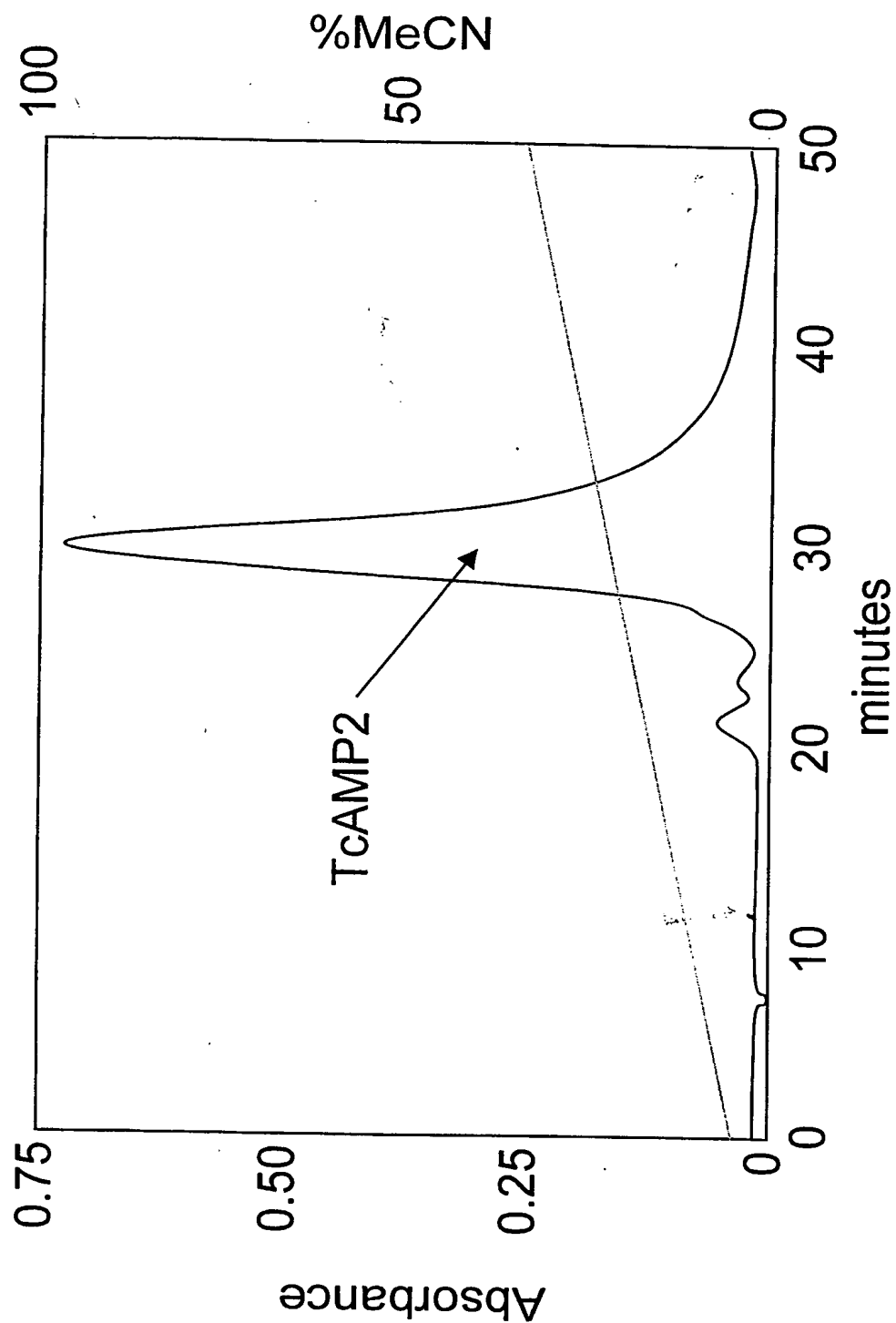


Fig. 10

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607250-75972200

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

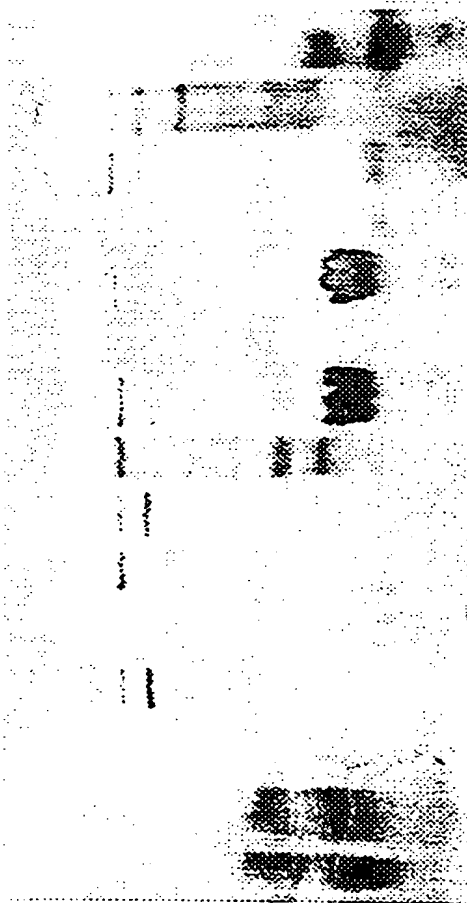
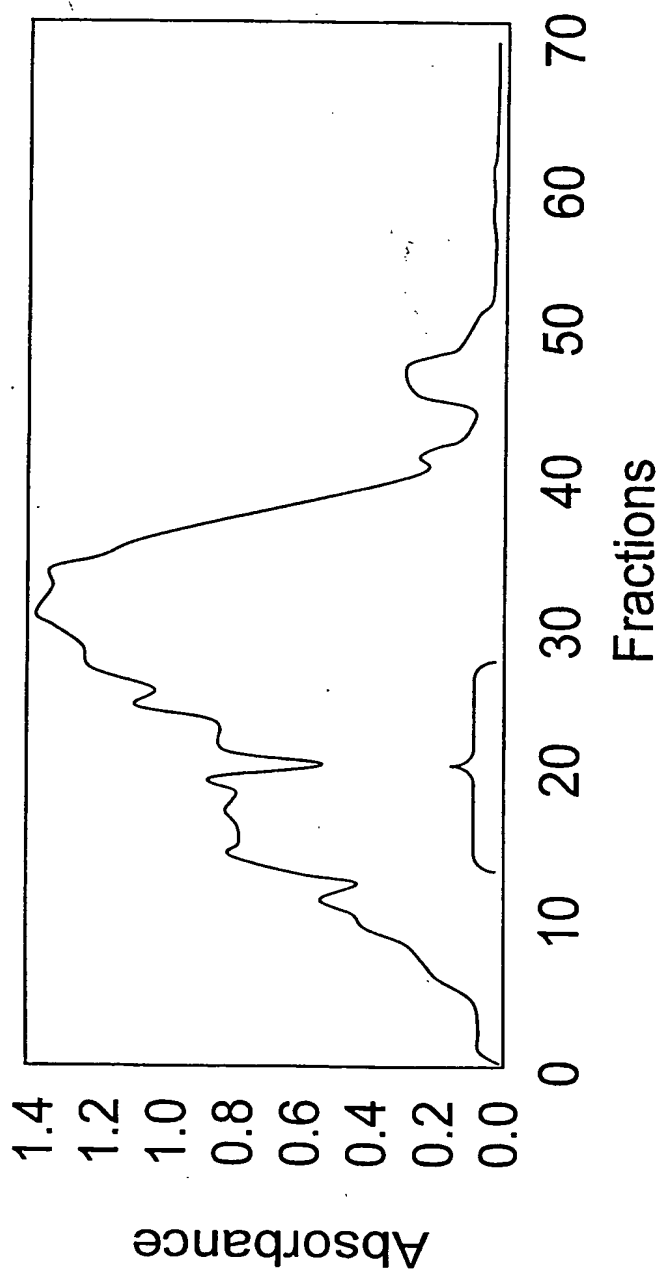


Fig. 11

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Fractions 14-28

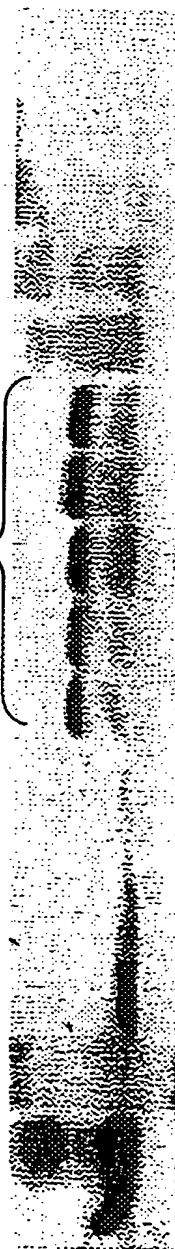


Fig. 12

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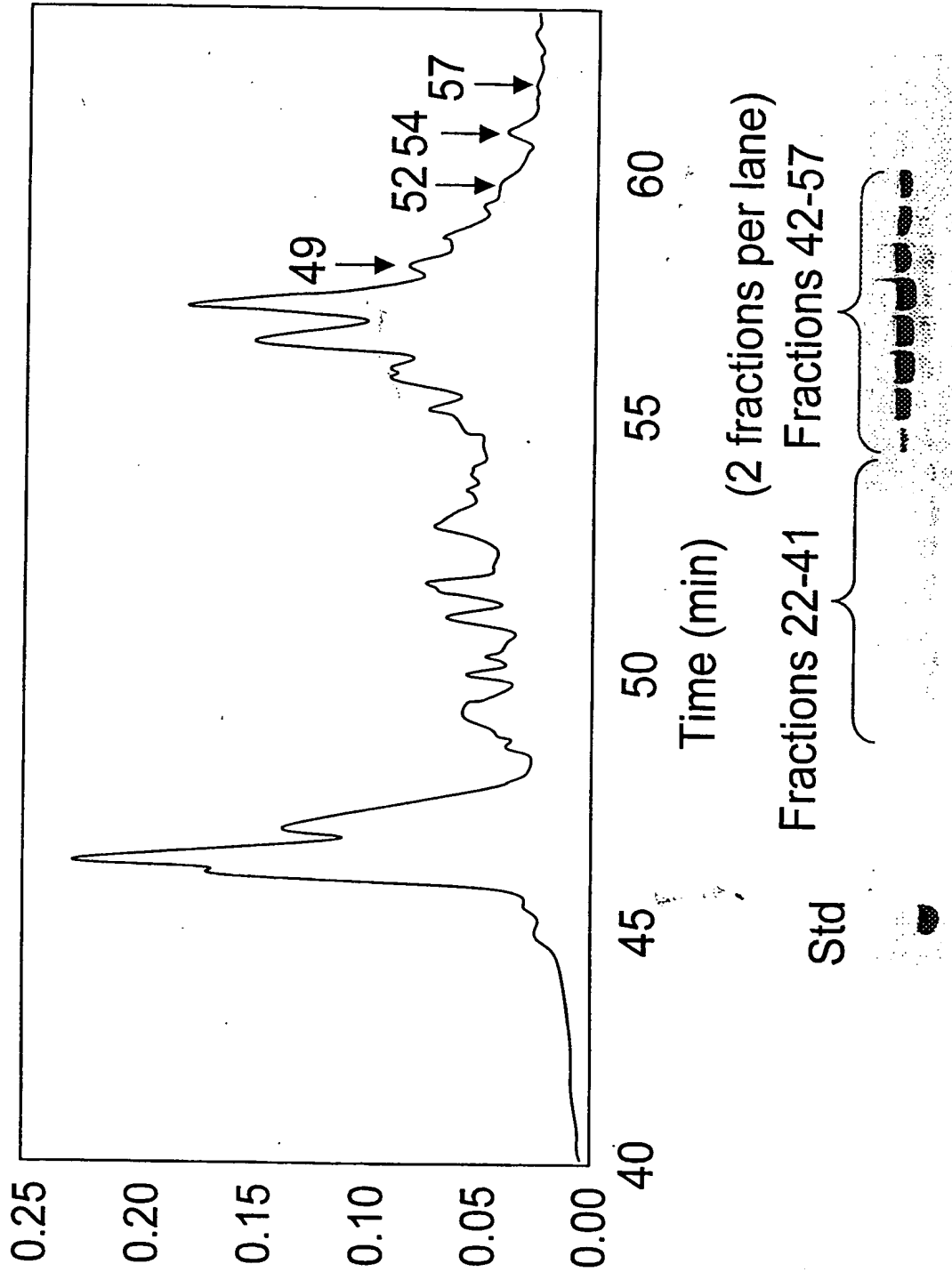


Fig. 13

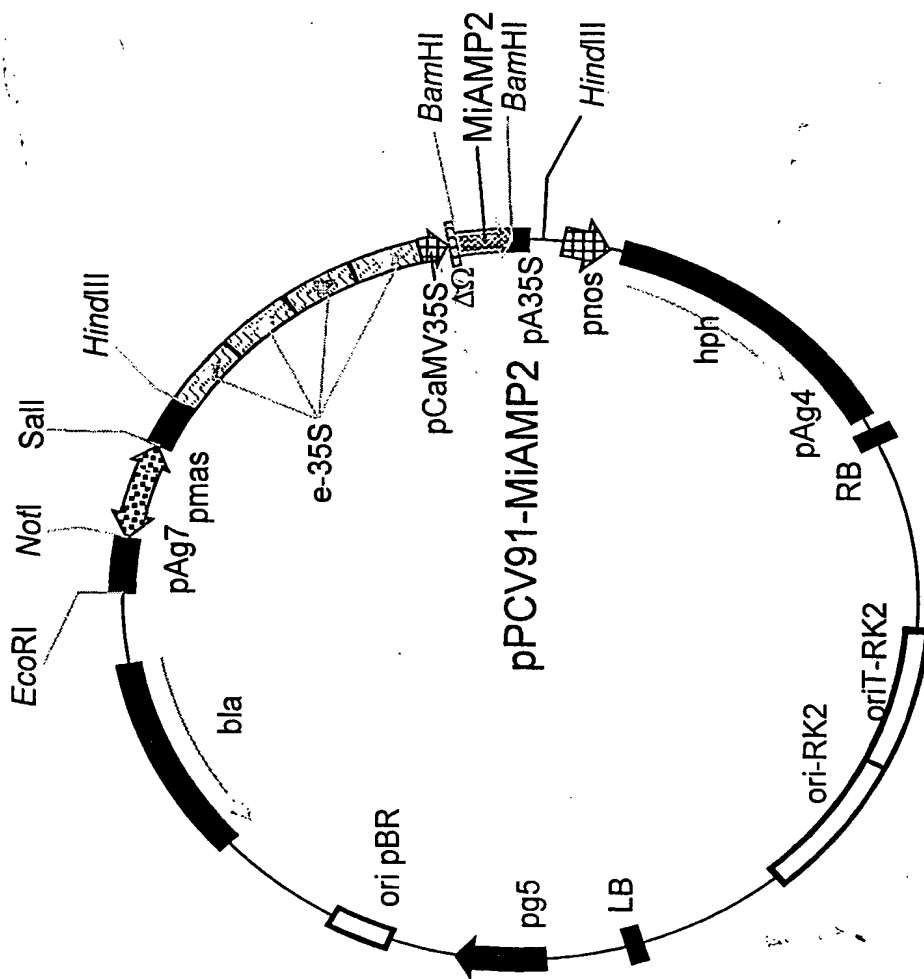


Fig. 14

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1 2 3



Fig. 15